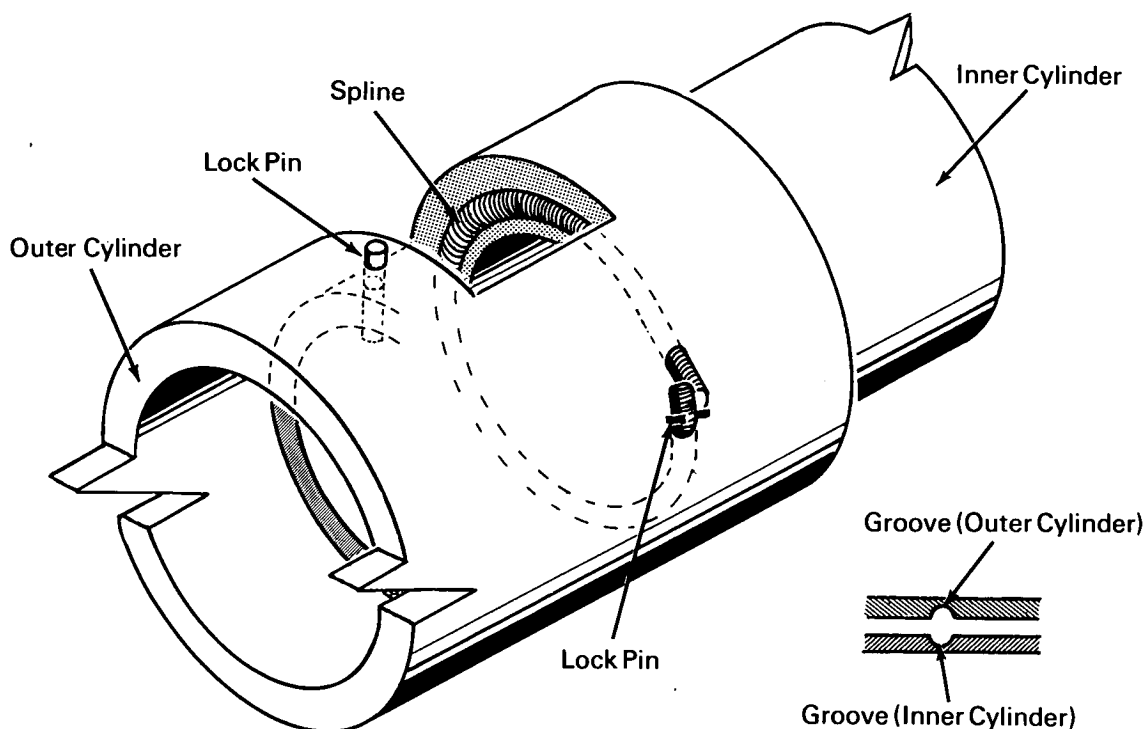


NASA TECH BRIEF



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Flexible Coiled Spline Securely Joins Mating Cylinders



The problem:

To join mating cylindrical members quickly and securely to form an integral structure.

The solution:

A spline made of tightly coiled, high tensile-strength steel spiral wire that fits a groove between the mating members.

How it's done:

Grooves of semicircular cross section are formed around the inner circumference of the larger member and the outer circumference of the smaller member.

A hole is drilled through the outer member to meet the groove tangentially. When the members are mated by aligning the grooves, the spline is inserted through the hole and forced around the circumferential groove with the aid of a power tool, such as an electric hand drill. Lock pins are used to secure the spline after installation and to prevent relative rotation of the mated cylinders.

Notes:

1. The spline provides a continuous bearing surface for axial thrust between the members.

(continued overleaf)

2. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
Western Operations Office
150 Pico Boulevard
Santa Monica, California, 90406
Reference: B66-10172

Patent status:

No patent action is contemplated by NASA.

Source: R. W. Coppernol
of General Dynamics/Astronautics
under contract to
Western Operations Office
(WOO-270)